undoubtedly sound, but, we fear, difficult to carry out in the present financial condition of our hospitals. Fortunately, the antiseptic treatment of these wounds has removed many of the secondary dangers, so that where there has been no sign of brain injury, we may still be justified in only making such cases in-patients for a few days.

The question of trephining or of withholding operative treatment in certain fractures of the skull is very instructively discussed and illustrated by carefully selected cases.

We can heartily endorse the author's conclusion: "I have some confidence in the belief that, if the views I have expounded were accepted, the teaching and understanding of cranial or cerebral injuries would be greatly simplified." A. W. MAYO ROBSON.

THE TREATMENT OF EMPYEMA. THE PROCESS OF REPAIR. A METHOD OF SUBCUTANEOUS DRAINAGE AND IRRIGATION. By G. J. ROBERTSON, M. B., C. M., Surgeon to the Oldham Infirmary.

In this small work Dr. Robertson divides his subject into two parts. The first deals with the mode of repair after operative interference; in the second he describes his method of operation, and relates cases bearing on his treatment. With regard to the process of repair, he draws attention to the vagueness of writers in their description of the subject. For an authoritative opinion he quotes from some lectures delivered at the Hospital for Consumption, Brompton, by Rickman Godlee, as follows: "The whole interior of the pleura which has suppurated becomes lined, if not with actual granulations, at least with a material which, like them, in its advance to a more highly organized condition, necessarily undergoes a process of contraction; and that which occupies the angles between the lung and chest walls, lung and diaphragm, lung and mediastinum, and diaphragm and chest walls is constantly drawing these structures toward one another." He appears to doubt the above theory as not accounting for those cases which heal up rapidly and in which the lungs appear to expand without any deformity of the chest wall. That the method of cure is different in the latter cases is undoubted, but that it holds good in chronic cases the examination of pathological specimens leaves no doubt. Dr. Robertson's own view is that a valvular arrangement exists, whereby fluid is allowed to escape, but an effective barrier is offered to the entrance of air. This condition he considers to be most nearly effected by the use of Listerian dressings, but considers that there are many serious objections to their use. He thus criticises them:

(1) It has to fulfil two purposes, and the conditions necessary for the one are antagonistic to those required for the other. The more closely it is applied and the more saturated it becomes with pus, the better does it serve as a valve. Drainage is best secured when it is porous and loosely applied.

(2) It is faulty inasmuch as it does not afford facility for detecting when it ceases to be effective for either purpose. The conditions are not favorable for ascertaining when air does or does not enter the cavity during inspiration. The incidental exposure of the wound entails the risk of collapse of the lung, an accident which cannot but delay the process of repair in proportion to the frequency of its recurrence. To sum up: The pressure of the fluid in the pleura being all or nearly all removed, the parietes begin to assume their normal movements, and the air being excluded the lung re-expands. Dr. Robertson then describes his method of operation, by which he believes this result may be obtained.

He inserts two drainage tubes into two contiguous intercostal spaces, preferably the mid axillary line. The ends both go down to the lower limit of the empyema. The lower one is short and is used for irrigation; the upper one is long and passes into a bottle containing an antiseptic fluid. Sufficient opening is made in the spaces with a bistoury to admit the tubes, and antiseptic dressings applied outside. He then cites thirteen cases treated by this method. The most striking fact which forces itself on one's attention on reading them over is that the oldest subject is only nine years of age. Do no cases of empyema in adults find their way into the Oldham Infirmary? If so, how are they treated? Or does Dr. Robertson consider his treatment only applicable to children? If so, he does not say so. Every surgeon knows that empyema in a child usually turns out satisfactorily by almost any treatment. Godlee quotes four cases out of thirty in which the empyema disappeared after one tapping.

Let us see what results he got in children by free incision and drainage. Total cases 23; average length of treatment 8 weeks. One death (cause not stated). One or two very chronic cases are here recorded which, as often happens, took a long time to heal after the operation, and consequently increase the length of treatment. On the whole, however, the results are highly satisfactory. Now for Dr. Robertson's figures. He had 13 cases, average treatment 17 days. *Three deaths from pyæmia.* There can be no doubt that in Godlee's cases the tube could in many be removed much sooner than it was, and so much reduce the length of treatment. But a week or two is

not of much account to a child to be kept under observation. And it must be remembered that as far as lung expansion goes Godlee's cases will probably compare quite as favorably with Dr. Robertson's. Lastly as to the dangers of the two methods. In 23 cases Godlee had one death, or 48 per cent. In 13 cases Dr. Robertson had three deaths or 23 per cent! We can only conclude that, however correct Dr. Robertson's theory may be, his practice is far from satisfactory.

H. H. TAYLOR.

THERAPEUTICS: ITS PRINCIPLES AND PRACTICE. By H. C. WOOD, M.D., LL. D., Professor of Materia Medica and Therapeutics and Clinical Professor of Diseases of the Nervous System in the University of Pennsylvania. Seventh edition. Philadelphia: J. B. Lippincott & Co. 1888. 8vo., pp. 908. Price in cloth, $6.00.

The fact that a medical work has reached its seventh edition is sufficient evidence of its acceptability to the profession, if not of its inherent value. The book under consideration complies with both of these requisites for success. It deals, as the author states, with "medical agencies, drugs and poisons, with especial reference to the relations between physiology and clinical medicine." It does not attempt, however, to discuss all the drugs which have put forward claims to therapeutical value, the author having exercised a careful censorship. Strophanthus, adonidine, paraldehyde, antefebrin, lanolin, saccharin and many more are admitted to consideration, but duboisia, Jamaica dogwood, quebracho, pulsatilla, sulfonal and a host of other agents, possessing therapeutic powers in varying amounts, fail of recognition. The author's selection, however, has been attended with wise discrimination and doubtless the ultimate verdict of the profession will agree with his. He has not indulged in a consideration of the drugs, used as antiseptics, from the surgeon's standpoint, and the reader looks in vain for an account of the local action of these agents, or for an account of general intoxication from local use. The experience of recent years has gone far toward the attainment of conclusive results in this direction, the consideration of which is of the greatest importance in surgical practice and is certainly not out of place in a work upon therapeutics. As a whole, however, the work is the ripe product of many years of careful study and extended experience, and forms probably the most reliable presentation of the subject extant.

JAMES E. PILCHER.